10 Strategies for Engaging Learners with Interactive e-Learning Software

This document outlines 10 strategies for engaging learners through the use of interactive e-learning software. This is not a how-to document; we simply describe some of the types of activities and strategies that may be useful in your course.

On our campus, we have several e-Learning resources available for instructor use. As an enterprise tool, fully supported for use by Faculty and Staff, we have SoftChalk Cloud.

"One of the main advantages of media over direct experience lies in the possibilities to intentionally shape, arrange, and optimize information with regard to the cognitive apparatus of its recipients".
(Schwan & Schwan, 2004)

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Strategy #1: Create interactive, Media rich, Self-Paced lessons
The basics: Studies show that "The provision of dynamic visualizations with interactive features may indeed accelerate the process of skill acquisition" (Schwan & Schwan, 2004). Make your online lessons interactive by building variety into the delivery of material. Use visuals, pictures, audio and video parts to present new material. Engage students with interactive activities. Create easy-to-make online quizzes and link the result to D2L grading system.

Strategy #2: Teach with Visuals: Picture-Based Learning
The basics: A cognitive theory of multimedia learning is based on three main assumptions: there are two separate channels (auditory and visual) for processing information; there is limited channel capacity; and that learning is an active process of filtering, selecting, organizing, and integrating information. One assertion in this realm is that people learn better from words and pictures than from words alone. The right picture at the right time at the right place is a great way to boost understanding as well as helping your learners build a memorable mental construction around a topic (Clark and Mayer, 2008).

Variations: E-Learning software helps instructors create instructional multimedia in customizable ways. This allows the instructor a means of creation for materials that align with prevalent multimedia learning theory. Deliver new material accompanied by pictures and photo albums with their description. Make slideshows that contain not only pictures with textual description, but also audio narration.

Strategy #3: Build Inquiry-Based Learning in Online Courses
The basics: Inquiry-based Learning (IBL) refers to an inquiry driven learning environment where "the tutor establishes the task and supports or facilitates the process, but the students pursue their own lines of

inquiry, draw on their existing knowledge and identify the consequent learning needs" (Kahn & O'Rourke, 2005). The learning starts with a scenario, after which students identify their own issues and questions. Students do research about the given topic and gather information about existing knowledge on the issue. Because the knowledge is acquired in relation to a real problem, students retain it more readily.

Variations: Interactive e-learning software makes it possible to design IBL in an online environment. For example, in SoftChalk the instructor can introduce the scenario using different multi-media means which can be embedded into a SoftChalk lesson. The software allows the instructor to insert external links and additional information to guide students' learning through IBL. Different games and activities will help students to complete the last step of IBL, that is articulate new understandings and identify paths for new study.

Strategy #4: Conduct Formative Assessment
The basics: According to Sadler "Formative Assessment refers to assessment that is specially intended to generate feedback on performance to improve and accelerate learning" (1998). Interactive e-learning software makes it easy to conduct formative assessment after each learning unit, get feedback and improve achievement. Activities that help to support formative assessment are scoring activities and quizzes, such as matching, pairs, ordering and identification. Students can be allowed to do either single or multiple attempts in tests thus making the assessment another way of learning.

Variations: Use SoftChalk Cloud's Learner Technology Interoperability links (LTI) to connect assessments directly from your learning modules into the Desire2Learn (D2L) gradebook.

Strategy #5: Scaffolding in Online Learning
The Basics: According to Grady (2006) scaffolding is "the instructional devices that enable students to complete tasks they would be unable to master without assistance". Using interactive e-learning software, structure your content using page numbers and page headings that indicate the progression of materials and concepts that build upon one another.

Variations: Include a table of contents with meaningful page numbers to help learners access the material they need (Softchalk). Create TextPoppers for defining new concepts in the text.

Strategy #6: Make Interactive Videos with Small Quizzes/Knowledge Checks
The basics: Studies have shown that videos can be just as effective as print when they afford self-regulated information processing (Merkt, Weigand, Heier & Schwan, 2011). Using interactive e-learning software, you can embed interactive videos into your online course materials. This can allow students to navigate through the information and control the pace of their own information processing. *"*One important purpose of making videos interactive may be to give the viewers the opportunity to adapt a presentation's

pace and sequence to their own cognitive needs and skills (Schwan & Schwan, 2004).

Variations: Similar to strategy #4 in this document, follow up manageable-sized video lectures with small quizzes or, knowledge mastery checks. More details on this variation can be found here:
[10 Strategies for Engaging Learners in Blended and Online Classes](#)

Strategy #7: Make Flashcards to Assist in Delivering Information
The basics: Studies show that students' performances have been improved while using flashcards and the improvement is especially visible for less successful students (Palombella & Johnson, 2005). The easy-to-make flashcards will engage students in memorizing important concepts or facts.

Variations: Using advanced e-Learning Software from Articulate, you can compile a nearly limitless number of flashcards that can be used for review and test preparation. The amount and sequence of the interactive flashcards can be randomized to provide a dynamic means of content review.

Strategy #8: Guided Discovery
The basic: Guided discovery is a facilitated process that leads learners to insights and generalizations. Instead of giving the general ground rules, learners are introduced to specific tasks and come to generalizations as a result of inductive processes. Using e-learning modules, instructors can present students with specific situations and content while also facilitating the consumption of internet resources to extrapolate meaning and understanding beyond what is presented in the lesson.

Variations: Using 'Sidebars' in SoftChalk Cloud, or additional resources tabs in the Articulate suite, can allow you to form a guided narrative for students to follow while also encouraging their active pursuit of similarly related topics.

Strategy #9: Weaken the Language Barrier with Audiovisual Materials
The basics: Online classes support learners from a wider geographical area, including other countries. Use interactive e-learning software to design lessons that meet the challenges your international students may face. Results suggest that gaps in achievement, motivation, and interest between native and non-native speakers can be eliminated when instruction involves visible authors rather than invisible authors. (Inglesea, Mayerb & Rigottic, 2007). In this regard, allowing non-native speakers to actually view speakers as they are speaking, versus reading transcripts or listening to audio alone, can be beneficial.

Variations: Studies provide 'encouragement that new media such as TV archives can be used to foster learning in academic settings, especially for students who are non-native language speakers". (Inglesea, Mayerb & Rigottic, 2007). Consider incorporating such archives when appropriate into your course content. Please be aware of and abide by any and all copyright restrictions.

Strategy #10: Case-Based Teaching

The basics: Case-based teaching is a pedagogical strategy that fosters learners' analytical thinking and helps them to apply their knowledge in practical situations. By examining a real-world situation or a case study, students are encouraged to engage in critical thinking and discussion by applying foundational knowledge to more complex and relevant situations, that may extend beyond the scope of the course work. Students may have increased motivation to gather additional information about the topic due to pertinent discussions that relate to experiences outside of the class.

Variations: e-Learning software allows instructors to create dynamic and complex learning modules wherein student decisions and actions have 'real-life' effects on how the student progresses through the module. Building these interactions allows a student to benefit from safe decision making through reactive, nonconsequential results.

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